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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
Office Action Summary	09/851,681	BAKER ET AL.
	Examiner	Art Unit	
	Rhonda Murphy	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>17 August 2007</u>.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19,21-34,36-38 and 75* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-19,21-34,36-38 and 75* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>29 August 2005</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Response to Amendment

1.   This communication is responsive to the amendment filed on 8/17/07.

Accordingly, claims 20, 35 and 39-74 have been previously canceled, and claims 1-19,

21-34, 36-38 and 75 are currently pending in this application.

Response to Arguments

1.   Applicant's arguments filed 8/17/07 have been fully considered but they are not

persuasive. Applicant argues Sofer fails to disclose a "community service area".

However, Examiner respectfully disagrees. Sofer teaches, as illustrated in Fig. 1, the

VPLMN 30 and HPLMN 20 coupled to an international telephone network, and

comprising a mobile switching center (page 1, paragraph 18). PLMNs are located within

a community service area for enabling subscribers to communicate while roaming

through the network. Furthermore, the claims as written do not distinctly define a

"community service area".

2.   Applicant further argues Sofer discloses using various intermediate protocol

layers and thus, teaches away from the claimed limitation "simplified protocol structure

eliminating unnecessary intermediate protocol layers". However, Examiner has not

replied upon the Sofer reference to teach such limitation. Lager teaches this limitation

as described below.

3.   Applicant requests further evidence and documentation with regard to the official

notice taken with the limitation "dedicated broadband connection". Examiner would like

to direct the applicant to the rejection of Claim 1 and the Vialen reference. Claim 1

recites "a dedicated broadband connection implements a simplified protocol structure

eliminating unnecessary intermediate protocol layers". Lager teaches dedicated

connections (P1 and P2 - Fig. 8; col. 11, lines 40-43) and a simplified protocol structure

eliminating unnecessary intermediate protocol layers as described in column 3, lines 58-

67 and column 4, lines 1-2. Lagers "transparent transfer method lessens the

requirement for the GPRS PLMN to interpret internal data protocols" reads upon the

above limitation.

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

2.   Claims 1 – 4, 23 – 25, 34, and 36 – 38 are rejected under 35 U.S.C. 103(a) as

being unpatentable over Lager et al. (US 6,636,502) in view of Sofer et al. (US

2006/0030304 A1) and Vialen et al. (US 6,606,310).

Regarding claim 1, Lager teaches a system comprising: a plurality of mobile stations

(Fig. 8, **GPRS-MS**); at least one packet data network (Fig. 8, **PDN1** and **PDN2**); and a

wireless access integrated node (WAIN) (**PLMN-SW**) coupled to the plurality of mobile

stations via a radio interface (represented by "**Sending NIP**" signal) and coupled to the

at least one packet data network via a network interface (represented by P1 and P2

lines; col. 11, lines 51-59) to provide an intermediating wired and/or wireless dedicated connection between the plurality of mobile stations and the at least one packet data network, wherein the dedicated connection (Fig. 8; col. 11, lines 40-43; dedicated connections P1, P2) implements a simplified protocol structure eliminating unnecessary intermediate protocol layers (col. 3, lines 58-67; col. 4, lines 1-2; transparent transfer method lessens the requirement for the GPRS PLMN to interpret internal data protocols), wherein the WAIN is further to establish General Packet Radio Service (GPRS) communication between the plurality of mobile stations via a single interface, the single interface including the radio interface (represented by "**Sending NIP**" radio signal), the WAIN having a control module (Fig. 8, **AC**) to control GPRS signaling and data transfer between the plurality of mobile stations (col. 12, lines 57-65).

Although Lager teaches a dedicated connection, Lager fails to explicitly disclose the dedicated connection as a dedicated broadband connection.

However, it is known in the art for wireless networks to consist of broadband connections. Vialen teaches a dedicated broadband connection col. 4, lines 31-44).

In view of this, it would have been obvious to one skilled in the art to include a dedicated broadband connection, in order to provide a high speed, dedicated path for the subscribers to efficiently transmit data within the network.

Lager fails to explicitly disclose wherein the WAIN is in communication with a plurality of WAINs within a community service area such that when a mobile station of the plurality of mobile stations roams outside an area covered by the WAIN, another WAIN of the plurality of WAIN is selected as a home WAIN to serve the mobile station,

wherein the selection of the home WAIN is based on an interrogation between the plurality of WAINs.

However, Sofer teaches the WAIN in communication with a plurality of WAINs (Fig. 1; VPLMN and HPLMN) within a community service area such that when a mobile station of the plurality of mobile stations roams outside an area covered by the WAIN, another WAIN of the plurality of WAIN is selected as a home WAIN to serve the mobile station, wherein the selection of the home WAIN is based on an interrogation between the plurality of WAINs (Fig. 1; page 1, paragraph 16 and 18-19)

In view of this, it would have been obvious to one skilled in the art to modify Lager's system by including a plurality of WAINs, as described by Sofer, so as to allow a mobile station to roam between networks.

Regarding claim 2, Lager further teaches a system wherein the packet data network is an Internet (the enclosed circle of Fig. 8).

Regarding claim 3, Lager further teaches a system wherein the packet data network is an intranet (Fig. 8, **PDN2**).

Regarding claim 4, Lager further teaches a system wherein the intranet is coupled to a content server (Fig. 8, **Radius server**).

Regarding claim 23, Lager teaches a wireless data collector interconnected with the WAIN (Fig. 8, **GPRS-MS**; col. 15, lines 10-15).

Regarding claim 24, Lager teaches a system wherein the radio interface is a GPRS radio interface (GPRS-MS transmits over radio interface represented by "Sending NIP" signal in Fig. 8).

Regarding claim 25, Lager teaches a system wherein the network interface is an IP

interface (Fig. 8, **IP-TUN** line connected to **ISP2**).

Regarding claim 34, Lager teaches a WAIN further supporting mobile stations roaming

between a local WAIN environment and a public mobile network (Fig. 4, col. 5, lines 56-

67).

Regarding claim 36, Lager teaches a WAIN further providing wireless data services in

a community service area located within cells of a public network (Fig. 8, public

networks **ISP's**) when the WAIN is clustered with other WAIN systems (Fig. 3, PLMN A

and PLMN B).

Regarding claim 37, Lager teaches a WAIN further supporting mobile stations roaming

between different WAIN systems (col. 5, lines 56-67).

Regarding claim 38, Lager teaches a WAIN further configuring the WAIN as a network

node (Fig. 8, col. 11, lines 6-16).

3.   Claims 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Lager, Vialen and Sofer as applied to claim 1 above, and further in view of Swartz (US

2003/0053444).

Regarding claim 21, Lager teaches a WAIN and commands from the mobile station to

the appliance control system.

        Lager fails to teach voice recognition capability for audibly replaying service

request commands.

However, Swartz teaches voice recognition capability for audibly replaying

service request commands (page 7, paragraph 72).

In view of this, having the system of Lager and then given the teachings of

Swartz, it would have been obvious to one having ordinary skill in the art at the time the

invention was made, to modify the system of Lager, by including voice recognition

means, in order to allow the user to verbally request information from the appliance

control system.

Regarding claim 22, Lager teaches a WAIN replaying an appliance status report

delivered from the appliance control system to the mobile station.

Lager fails to teach text-to-speech capability to audibly replay the report.

However, Swartz teaches text-to-speech capability for audibly relaying

information (page 7, paragraph 74).

In view of this, having the system of Lager and then given the teachings of

Swartz, it would have been obvious to one having ordinary skill in the art at the time the

invention was made, to modify the system of Lager, by including text-to-speech means,

in order to allow the user to receive audio data which was originally in text form.

4.   Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lager,

Vialen and Sofer as applied to claim 1 above, and further in view of McNiff et al (US

2003/0076808).

Regarding claim 26, Lager teaches a system comprising a user to obtain a temporary

subscription to the WAIN through a dynamic registration (col. 12, lines 66-67, col. 13,

lines 1-12).

Lager fails to teach a temporary subscription and cancellation process in which

the user's mobile station's secret subscription identity is linked with an equipment

identity of the mobile station of the user.

However, McNiff teaches a temporary subscription and cancellation process

(page 3, paragraph 36) in which the user's mobile station's secret subscription identity

(page 3, paragraph 29) is linked with an equipment identity of the mobile station user

(page 3, paragraph 28).

In view of this, having the system of Lager and then given the teachings of

McNiff, it would have been obvious to one having ordinary skill in the art at the time the

invention was made, to modify the system of Lager, by including a temporary

subscription and cancellation process, in order to restrict access to registered users and

maintain a secure network.

5.   Claims 5-10, 12-14, 16, 27-33 and 75 are rejected under 35 U.S.C. 103(a) as

being unpatentable over Lager, Vialen and Sofer as applied to claim 1 above, and

further in view of Pines et al. (US 2003/0007625).

Regarding claim 75, Lager teaches the WAIN comprising: a plurality of mobile data

transmission modules and signaling modules for sending, processing, and receiving

data packets (Fig. 8, modules **SCM, SEL, MSC/VLR, NIP-RC** and transceiver (not

shown) connected to the antenna of PLMN-SW, for communication with the GPRS-MS);

a plurality of interfaces and ports for sending messages to and receiving messages from

at least one packet data network, systems, and mobile stations interconnected with the

WAIN (col. 11, lines 17-24, 51-59); a database containing subscription and operating

information for the plurality of mobile stations attached to the WAIN (Fig. 8, **HLR/SP**;

col. 12, lines 66-67, col. 13, lines 1-3; col. 15, lines 32-36); and a main controller to

coordinate and control one or more of the mobile data transmission modules, signaling

modules, interfaces, and database (Fig. 8, **AC**; col. 12, lines 57-65).

Lager fails to explicitly teach a database containing charging information for the

plurality of mobile stations attached to the WAIN.

However, Examiner takes official notice that it is known in the art for charging

information to be stored in a database for billing subscribers. It would have been

obvious to one having ordinary skill in the art at the time the invention was made, to

include a database containing charging data in order to record subscriber use/access to

the network.

Lager also fails to explicitly teach a main controller for collecting charging data.

However, Pines teaches a main controller (Fig. 1, **service provider 26**) for

collect charging data (page 16, paragraph 0200).

In view of this, having the system of Lager and then given the teachings of Pines,

it would have been obvious to one having ordinary skill in the art at the time the

invention was made, to modify the system of Lager, by collecting charging data within

the main controller, in order to maintain subscriber records within a centralized location.

Regarding claim 5, Lager further teaches a system wherein the mobile data

transmission module is a PDCP module (col. 8, lines 6-8).

Regarding claim 6, Lager further teaches a system wherein the mobile data

transmission module is a RLC/MAC module (col. 5, lines 28-39; note col.10, lines 66-67,

col. 11, lines 1-5).

Regarding claim 7, Lager further teaches a system wherein the mobile data

transmission module is a Transceiver (TRX) module (Fig. 8, transceiver (not shown)

connected to the antenna of PLMN-SW, for communication with the GPRS-MS).

Regarding claim 8, Lager further teaches a system wherein the signaling module is

Radio Resource Management (module (not shown) located within SGSN of Fig. 8, col.

8, lines 6-30).

Regarding claim 9, Lager further teaches a system wherein the signaling module is

GPRS Mobility Management (SCM of Fig. 8, col. 14, lines 64-67, col. 15, lines 1-10;

wherein the SCM provides security by permitting or denying access to the packet data

network).

Regarding claim 10, Lager further teaches a system wherein the signaling module is

Session Management (NIP-RC of Fig. 8, col. 12, lines 49-54).

Regarding claim 12, Lager further teaches a local information system interface (Fig. 8,

IP-TUN line).

Regarding claim 13, Lager further teaches an appliance control interface (Fig. 8, **P1**

line).

Regarding claim 14, Lager further teaches a system wherein the interface is an

intranet gateway (an intranet gateway interface is inherent in the system depicted in Fig.

8, since an interface is required for the exchange of data between the access node of

PLMN-SW and the intranet of **PDN2**).

Regarding claim 16, Lager teaches a local information system interconnected with the

WAIN (Fig. 8, **ISP2**).

Regarding claim 27, Lager teaches mobile transmission modules including means for

modulating data packets (it is well known in the art that data packets are modulated for

transmission over a communication network).

Regarding claim 28, Lager teaches mobile transmission modules including means for

compressing data packets (col. 3, lines 64-67, col. 4, lines 1-2).

Regarding claim 29, Lager teaches mobile transmission modules including means for

encrypting data packets (col. 3, lines 41-45).

Regarding claim 30, Lager teaches mobile transmission modules including means for

multiplexing data packets (multiplexing data packets are known in the art for

transmitting signals over a single channel; TDMA is supported by GPRS, thus

multiplexing is inherent).

Regarding claim 31, Lager teaches mobile transmission modules including means for

correcting errors in data packets (error correction in data packets are well known in the

art for proper data reception).

Regarding claim 32, Lager teaches mobile transmission modules including means for

segmenting data packets (it is known in the art that data packets are segmented -

encapsulated and decapsulated for transmission among different network protocols; col.

5, lines 32-39).

Regarding claim 33, Lager teaches mobile transmission modules including means for

controlling the sequence of data packets (controlling the sequence of data packets is

well known in the art, and occurs within the access control unit, **AC**, in Fig. 8).

6.   Claims 11 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Lager, Vialen, Sofer and Pines et al. (US 2003/0007625) as applied to claim 75

above, and further in view of Gaffney (US 6,333,919).

Regarding claim 11, Lager teaches a system with interfaces.

        Lager fails to explicitly teach a voice interface.

        However, Gaffney teaches a system with voice interfaces (Fig. 1, **interface 110**

and **120**).

        In view of this, having the system of Lager and Pines and then given the

teachings of Gaffney, it would have been obvious to one having ordinary skill in the art

at the time the invention was made, to modify the system of Lager, by including a voice

interface, in order to provide a link for the exchange of voice data between devices.

Regarding claim 15, Lager teaches a system having ports.

        Lager fails to explicitly teach an RJ11 port for a fixed wired telephone connection.

        However, Gaffney teaches a fixed wire telephone connection (Fig. 1, desk phone

450; col. 4, lines 55-56) and it is known in the art that desk phones commonly use an

RJ11 jack.

In view of this, having the system of Lager and Pines and then given the teachings of Gaffney, it would have been obvious to one having ordinary skill in the art at the time the invention was made, to modify the system of Lager, by including an RJ11 port, in order to provide a connection for telephone use.

7.   Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lager, Vialen, Sofer and Pines as applied to claim 16 above, and further in view of Doviak et al. (US 6,418,324).

Regarding claim 17, Lager teaches a WAIN with a local information system.

Lager fails to teach remotely synchronizing a personal digital assistant with its host program.

However, Doviak teaches remotely synchronizing a personal digital assistant (Fig. 1, **PDA 52**) with its host program (**MDC 54**; col. 9, lines 4-20).

In view of this, having the system of Lager and Pines and then given the teachings of Doviak, it would have been obvious to one having ordinary skill in the art at the time the invention was made, to modify the system of Lager, by remotely synchronizing a personal digital assistant with it's host, in order to provide a user with a wider coverage area and more efficient service.

8.   Claims 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lager, Vialen, Sofer and Pines as applied to claim 16 above, and further in view of Swartz (US 2003/0053444).

Regarding claim 18, Lager teaches a WAIN and commands from the mobile station to

the local information system.

Lager fails to teach voice recognition capability for audibly replaying service

request commands.

However, Swartz teaches voice recognition capability for audibly replaying

service request commands (page 7, paragraph 72).

In view of this, having the system of Lager and then given the teachings of

Swartz, it would have been obvious to one having ordinary skill in the art at the time the

invention was made, to modify the system of Lager and Pines, by including voice

recognition capability, in order to allow the user to verbally request information from the

local information system.

Regarding claim 19, Lager teaches a WAIN replaying information from the local

information system to the mobile station.

Lager fails to teach text-to-speech capability for audibly replaying information.

However, Swartz teaches text-to-speech capability for audibly replaying

information (page 7, paragraph 74).

In view of this, having the system of Lager and Pines and then given the

teachings of Swartz, it would have been obvious to one having ordinary skill in the art at

the time the invention was made, to modify the system of Lager, by including text-to-

speech capability, in order to allow the user to receive audio data which was originally in

text form.

Conclusion

9.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Rhonda Murphy whose telephone number is (571) 272-

3185. The examiner can normally be reached on Monday - Friday 9:00 - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Huy Vu can be reached on (571) 272-3155. The fax phone number for the

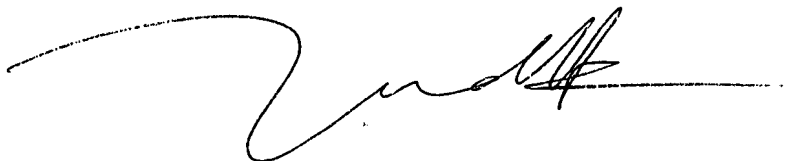organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Rhonda Murphy
Examiner
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